

Freshwater Fisheries Monthly Report – October 2020

Stock Assessment

Piney Reservoir - This Garrett County reservoir was surveyed for largemouth bass population densities using an electrofishing mark and recapture technique. Piney Reservoir supports an exceptional largemouth bass population characterized with a large percentage of bass greater than 15 inches. The reservoir also supports an abundant yellow perch population, as well as bluegill, pumpkinseed, and white crappie. Staff observed numerous striped bass juveniles from the July 2020 stocking - most were in the four to six inch size class. Anglers have reported catching larger striped bass from stocking in previous years.



A pair of trophy largemouth bass from Piney Reservoir

Upper Potomac River - Boat electrofishing surveys were initiated on the upper Potomac River. Stations from Edwards Ferry upstream to Little Orleans are being sampled to check the status of the adult population of several gamefish species (smallmouth bass, muskellunge, and walleye). Flathead catfish are also being collected to monitor the distribution, abundance, and population structure of this invasive species. As river and weather conditions allow, survey work will continue into November.



Smallmouth bass collected at McCoys Ferry on the upper Potomac River

Loch Raven Reservoir - Conducted a nighttime electrofishing survey on Loch Raven Reservoir (Baltimore County) for largemouth and smallmouth bass. Nineteen random sites around the entire perimeter of Loch Raven Reservoir were surveyed over three nights. Along with largemouth and smallmouth bass, numerous chain pickerel, black crappie, yellow perch, white perch, bluegill sunfish, and one northern pike were observed during the survey. Northern snakehead were also documented in the reservoir for the first time. Three snakeheads in total were collected at different sites.

Centennial Lake - Conducted a mark and recapture electrofishing survey for largemouth bass in Centennial Lake (Howard County) over a two night period separated by six days. The entire perimeter of the lake that was accessible by electrofishing boat was surveyed both nights. A total of 103 largemouth bass equal to or greater than eight inches were collected over the two nights. Survey data are being compiled. Other species of fish observed included bluegill and redear sunfish, black crappie, and for the first time in Centennial Lake, white perch up to 13 inches long.

Little Seneca Lake - Conducted a nighttime electrofishing survey on Little Seneca Lake (Montgomery County) for largemouth bass and northern snakehead. Twelve random sites around the perimeter of the lake were surveyed over a two night period. Anglers reported catching northern snakehead in Little Seneca Lake in 2018: however, Fishing and Boating Services did not confirm their presence until June 2019. During the October 2020 survey, northern snakeheads were collected in 11 of 12 surveyed sites around the lake and are now well established with multiple year classes observed. Other species observed included largemouth bass, yellow perch, black and white crappie, bluegill sunfish, green sunfish, and redbreast sunfish. Very good largemouth bass, yellow perch, and bluegill sunfish recruitment was observed although very few quality size sunfish were observed.

Tuckahoe Lake and Johnsons Pond - Completed largemouth bass mark and recapture studies on Tuckahoe Lake and Johnsons Pond. These studies will yield traditional metrics on bass relative abundance, but will also allow staff to estimate population size. Survey data have not been analyzed yet, but it appears as if both impoundments continue to support robust bass

populations. Both impoundments contain plenty of forage and the bass were in excellent physical condition. Bass anglers should be quite pleased with the fishing at either impoundment. Unfortunately, northern snakehead were collected for the first time from both Tuckahoe Lake and Johnsons Pond. Numbers at this time appear to be low in both impoundments - future studies should allow staff to monitor snakehead abundance over time and potential impacts to other species. Stay tuned.



Marking a largemouth bass from Tuckahoe Lake with a “cutting edge” fisheries science tool



A quality bass from Johnsons Pond

Habitat and Water Quality

Environmental Review - Provided aquatic resource information for the following environmental review projects:

- Allegany County Department of Public Works regarding a bridge rehabilitation project over Jennings Run (Use III) and two bridge rehabilitation projects spanning Evitts Creek (Use IV). Recommendations have been made to assure that impacts are minimized to the greatest extent possible and that stream habitat is protected in these Use III and Use IV trout streams.
- Five stone revetment applications along the Deep Creek Lake shoreline. Freshwater Fisheries Program staff commented on the applications recommending adherence to standard procedures for the stone revetment construction, including the establishment of fish habitat along the stone wall and the lake bottom.
- An application by Columbia Gas for a proposed gas line installation project under a Use III-P unnamed tributary to Georges Creek. The project proposes to use horizontal directional drilling under the stream bed; however, it was recommended that the time of year restrictions be followed for precautionary measures in the event of an accident during the drilling process.
- A time of year waiver request from the State Highway Administration for a bridge replacement project spanning lower Jennings Run. Our brook trout survey data show brook trout populations were not found at this location, but further upstream. Recommended avoiding dewatering any entire stream segment by using separate diversions to keep water in at least half of the stream width at the project site. Another recommendation made was to complete the work during the low flow period to reduce any impacts to the aquatic environment.
- Provided data on the Jabez Branch brook trout population and water temperatures to Trout Unlimited.
- Did a site visit to proposed stream restoration on Western Run in Baltimore County.

Fish Habitat Enhancement - The fish habitat project on Broadford Lake is complete. The fish habitat posts were installed with the cooperation of the Town of Oakland. Anglers have already been observed fishing these structures and they also have shown to be popular perch sites for great blue herons and belted kingfishers.



Tree post fish habitat structures in Broadford Lake

Land Stewardship Committee - Provided supportive comments for two land parcels totaling 54 acres adjacent to the Savage River State Forest. These parcels contain about 1,200 feet of Pine Swamp Run, a high quality native brook trout stream. Brook trout are listed as a species of greatest conservation need in Maryland, and the Savage River Watershed is the stronghold for brook trout in the state. Acquisition of these parcels will provide for long-term water quality and stream habitat protection in the Savage River watershed.

State Lake Fund Projects - Continued working with Deep Creek Lake and Rocky Gap State Park staff to plan for the construction and deployment of reef ball fish habitat structures that will start in late October.

Temperature Monitoring

- Temperature loggers were deployed in the North Branch Potomac River at five locations from the lower catch and return trout fishing area downstream to the lower boundary of the zero creel limit trout fishing area at Pinto. These data will help us with trout management and could help further protect the stream through Maryland's Water Quality Standards.
- Temperature loggers were retrieved from the Youghiogheny River from fourteen sites from Swallow Falls downstream to the Sang Run Bridge. These data were sent to Versar, Inc. to analyze the effectiveness of temperature enhancement releases from the Deep Creek Lake hydroelectric station. The new water appropriation permit for the hydroelectric station included modifications to further enhance temperatures in the river for trout management. The modifications include monitoring river temperatures starting on May 15 and extending the requirement of temperature enhancement releases to September 15.



New water appropriation permit conditions will provide for better trout survival in the Youghiogheny River Catch-and-Return Trout Fishing Area.

- Western Region II staff retrieved temperature loggers from multiple watersheds in Frederick County as part of a groundwater monitoring project between Freshwater Fisheries, Trout Unlimited-National Capital Chapter, and U.S. Geological Survey (USGS) Leetown Science Center. Paired air and water temperature loggers were deployed at sites on Fishing Creek, Little Hunting Creek, Clifford Branch, and several other stream systems. The project hopes to identify streams with high groundwater input. These watersheds will be the most resilient to potential increases in summertime air temperatures.
- Central Region concluded the stream temperature monitoring index period by removing 18 deployed WaterTemp Pro water temperature loggers from streams within the region for evaluation.

Stocking and Population Management

Trout - Assisted hatchery personnel with stocking trout streams for the fall stocking season.

Several locations in southern Maryland were stocked as part of the fall put-and-take trout fishery. Anglers look forward to this short-lived fishery, which offers a unique opportunity to target rainbow trout in the southern portion of the state.

Stocking Permits – There were five stocking permits issued in October, staff fielded many inquiries.

Outreach

Customer Service - Provided information for inquiries regarding:

- Private pond owner stocking advice.
- Tiger musky fishing opportunities to an angler.
- Broadford Lake fish habitat improvement project.
- North Branch Potomac River trout fishing opportunities.

Master Naturalist – Presented a virtual class for the Master Naturalist Program at the Carrie Murray Nature Center in Baltimore City. Participants were given a presentation that covered aquatic ecosystems, water quality, stream assessment, invasive species and other threats to stream ecosystems. Participants also learned the basic characteristics of the 23 families of freshwater fishes in Maryland. The next morning the class met in person to learn about the fish families and were provided the opportunity to key out multiple fish specimens.



Future Master Naturalists learning about freshwater species

Angler Access

Fishery Management Areas Maintenance - Upkeep and maintenance continued at the fishery management areas (FMAs) to provide angler access. The Gary A. Yoder, McCoole, and Evitts Creek Ponds FMAs continue to be mowed and cleared of trash to make these areas presentable for anglers and recreational boaters.

Invasive Species

Alabama Bass - Completed a risk assessment that describes problems with introducing Alabama bass into Maryland. The assessment will support a regulatory idea to list Alabama bass in the department's list of species banned for sale or live possession in the state.

Blue Catfish - Continued collection of invasive blue catfish in the tidal Patuxent River (Anne Arundel, Charles, Prince George's counties) as part of a cooperative project with USGS Leetown Science Center and other partners. Since December 2019, over 2,000 blue catfish have been collected and examined for diet. Common diet items include white perch, aquatic vegetation, and mud crabs, among others. This work is the most extensive diet study of blue catfish in the Maryland portion of Chesapeake Bay, and should offer insight into what the fish are eating and how they may be affecting aquatic communities.

Brook Trout Program

Participated in the North Branch Advisory Commission meeting.

Performed quality assurance/quality control for the water temperature probe in the North Branch Potomac river located near Keyser, WV.

Reviewed and updated information on trout hooking mortality research and literature.

Tagged northern pike with Floy tags as part of an ongoing pike tagging study. Staff also handed out survey cards to anglers, in part to determine if there is angler bias in returning/reporting information from tagged pike that are caught.

Participated in the Allegany County Environmental Quality Incentives Program (EQIP) meeting to discuss and review scoring criteria for proposed projects.

Responded to customer service inquiries about brook trout angling opportunities statewide.

Tidal Bass Program

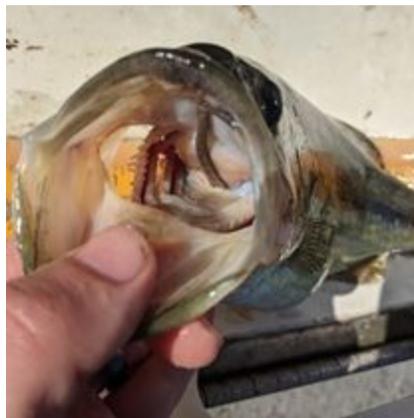
Stocked 650 largemouth bass juveniles (6 to 10 inches) in the tidal Gunpowder River to bolster the fishery as part of collaborative efforts with Wheelabrator Technologies Inc.

Participated in the fall meeting of the Black Bass Advisory Committee on October 5. Meeting minutes and summary of motions and actions are available on the [Black Bass Advisory Committee webpage](#), along with upcoming dates for 2021 meetings.

Discussed recommendations from the Black Bass Advisory Committee to improve special conditions issued with permits during summer and early fall bass tournaments.

Central Region staff sampled 36 randomly selected tidal black bass sites during October in the Gunpowder River (16 sites), Bush River (10 sites), Patapsco River (six sites) and Back River (four sites). Largemouth bass were collected in all river systems except the Back River. Northern snakeheads were found in all river systems. Results that describe the health of the bass fisheries will be available in early spring.

Eastern Region Freshwater Fisheries staff finished fall sampling activities which assess tidal black bass populations. The Chester River, which has not been sampled in several years, turned out to be a pleasant surprise, with multiple preferred-length bass collected from most sites. All bass collected were in excellent physical condition. Catch rates for bass collected from the Pocomoke was low compared to the other rivers within the region; however, this is not cause for alarm. Lower catch rates are quite common on the Pocomoke, but it still contains a good bass fishery. A total of 25 DNA samples were collected from largemouth bass from the Pocomoke River. The DNA will be used to better understand the genetic makeup of tidal bass and to help better manage the river. Results that describe the health of the bass fisheries will be available in early spring.



Largemouth bass with DNA collected from caudal fin and a view of its lunch on the Pocomoke River.



A lunker of a largemouth bass collected from the tidal Chester River.